

Department of Electrical Engineering
Punjab Engineering College (Deemed to be University),
Chandigarh
QUOTATION NOTICE

Elect. Engg. Deptt.

PEC/EED/ 909

Dated 13.07.2026

Subject: Invitation for Quotations for the Supply of Bidirectional Inverter, LCL Filter, and Voltage & Current Sensor Card

Sealed quotations are hereby invited from eligible manufacturers, authorized distributors, or suppliers for the supply, installation, testing, and commissioning of the following items for the Department of Electrical Engineering, Punjab Engineering College (Deemed to be University), Chandigarh.

The quotation should be submitted in a sealed envelope, duly sealed with wax or transparent adhesive tape and signed across the seal. The envelope should be clearly superscribed "Quotation for the Purchase of Bidirectional Inverter, LCL Filter, and Voltage & Current Sensor Card."

The sealed quotation should reach the following address on or before 03 August 2026 (Monday) by 05:00 PM:

The Head
Department of Electrical Engineering
Punjab Engineering College (Deemed to be University)
Sector 12, Chandigarh – 160012.

S.No.	Item Description	Quantity
1	Bidirectional inverter (The detailed specifications are attached with this letter)	1
2	LCL Filter (The detailed specifications are attached with this letter)	1
3	Voltage and Current Sensor card (The detailed specifications are attached with this letter)	1

The quotation will be opened on 4th August 2026, Wednesday at 02:30 PM by the committee members in the presence of the bidders or their representative who may like to be present during opening of quotations.

Terms and Conditions

1. The rates quoted should be on F.O.R. Punjab Engineering College (Deemed to be University), Chandigarh basis and should be inclusive of all

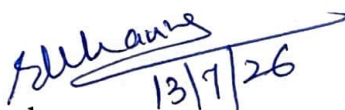


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applicable charges, including packing, forwarding, freight, insurance, installation, and taxes, if any.

2. No advance payment shall be made. 100% payment will be released only after the successful delivery, installation, commissioning, and satisfactory performance of the equipment.
3. The supplier shall submit complete technical literature, brochures, and compliance with the enclosed specifications along with the quotation.
4. The quoted prices should remain valid for a minimum period of 90 days from the date of opening of the quotations.
5. The Institute reserves the right to accept or reject any or all quotations, wholly or partly, without assigning any reason. The decision of the competent authority shall be final and binding on all bidders.

Note: The quotation notice may be downloaded from the institute website i.e. www.pec.ac.in


13/7/26
Head,
Department of Electrical Engineering

1. Specifications of Bidirectional Inverter:

- ❖ Input Voltage: Three Phase 415 V, 50 Hz.
- ❖ DC Link Voltage: upto 750 V.
- ❖ Output voltage: upto 440V_{LL}
- ❖ Output current: upto 10 A
- ❖ Three phase diode rectifier: 1600 V, 100 A for AC-DC power conversion with split DC-link capacitor
- ❖ IGBT Module: 1200 V, 75 A with appropriate snubber circuit
- ❖ Proper heat sink with fan
- ❖ Recommended switching frequency of the inverter 10-15 kHz
- ❖ Port for connecting 06 gate pulses to drive IGBTs of the inverter circuit
- ❖ IGBTs with desaturation(D-SET) protection against overload and short-circuit
- ❖ Indication of READY and FAULT with a provision to latch driver output and reset with RESET button.
- ❖ All cards are mounted in acrylic box with power terminals and control terminals.

The distinct features of Driver card:

- ❖ Suitable for 1200 V, 75 A IGBTs
- ❖ 2 A rail-to-rail output
- ❖ Individual six channel isolated IGBT driving
- ❖ Input pulses: CMOS 0-5 V
- ❖ Output pulses: Isolated +16V/-8V
- ❖ Shoot through, short circuit protection with DESAT-detection
- ❖ On board hardware dead time generator circuit
- ❖ Inhibiting all gate pulses during any abnormality/hardware error/FAULT condition
- ❖ RESET to start gate pulses after clearing the FAULT. Driver can be RESET via on board switch.

2. Specification of LCL Filter:

- ❖ Inductor: 7.5 mH
- ❖ Capacitor: 3.5 μ F / 440 V

3. Specification of Sensors:

Three AC output currents & One DC voltage

Calibration Range (Standard):

- ❖ AC current measurement (03 No.): 0-10 A -> 0-3V_{pp} with 1.5V offset
- ❖ DC voltage measurement (01 No.): 0-750 V -> 0-3V_{avg} with 0 offset

