

PRASAR BHARATI (INDIA'S PUBLIC SERVICE BROADCASTER OFFICE OF THE ADDL.DIRECTOR GENERAL (E) (SZ) AKASHVANI & DOORDARSHAN SWAMI SIVANANDA SALAI, CHENNAI-600 005.



No. ADG (E)(SZ)/AIR/INST/IO- 03/2025-26

Date: 17-04-2025

Sub: SITC of Surge Protector (3P+N) for Akashavni Kumbakonam & Shivamogga

This office is interested in procurement of following items for Akashvani, Kumbakonam and Akashvani, Shivamogga for which you are requested to furnish your sealed quotation.

The Specification/ bill of Material are furnished here under.

Specification of MOV Based Surge Protector for Akashvani, Kumbakonam & Shivamogga

I) General Features:

- 1. Surge Protectors must be of Industrial grade providing superior Protection Characteristics. They will be installed in existing LT Panels of FM Transmitters at AIR, Stations which are situated in high Rainfall, High Lightning areas in SZ.
- 2. Surge Protection Device should provide uninterrupted protection from damage caused by electrical surges or direct lightning strikes thereby preventing damage of FM Transmitter and its associated Components. They should be maintenance free design and should absorb and dissipates the excess energy of successive surges without performance deterioration.
- 3. Surge protector in 3P+N protection Mode shall be of heavy duty distribution grade Metal Oxide Varistor (MOV) disk type which are assembled under pressure in an environmentally sealed aluminium casing thereby providing very low internal contact resistance, excellent thermal management and uniform distribution of the surge current over the total area of the protection element.
- 4. Surge Protector should be capable of handling extremely high energy combined with very low let through voltage.
- 5. Surge Protector should be designed to minimize the effects of ageing, completely eliminates the risk of catastrophic failure, explosion or fire which are common in conventional surge protective devices relying on the use of internal fuses and thermal disconnects.
- 6. Surge Protector module should be designed to withstand repeated surges providing a cost effective and maintenance free operation in harsh environments thereby ensuring that critical electronic equipment will remain protected at all times.
- 7. Surge Protection should be rated for safe operation without the use of internal fuses.
- 8. Surge Protector in 3P+N Mode Protection should be housed in a cabinet with 125A MCB 4PN Breaker. This Surge Protector should be integrated to existing LT Panels.

II) <u>TECHNICAL SPECIFICATION:</u>

Sl	Specification Parameter	Specification Values	
No			
1	Surge protective Devices (SPD) type as per UL 1449 4^{th} Edition	Type 2 component Assembly	
2	Surge protective Devices (SPD) class as per IEC 61643-11	Class I + II	
3	Mode of protection	3P+N	
4	Nominal operating AC voltage [Un]	240 V	
5	Maximum continuous operating AC Voltage [Uc]	300 V	
6	Temporary AC over voltage with stand [Ut] for 5 sec as per IEC 61643 - 11	500 V	
7	Nominal Discharge current [In] as per IEC 61643 – 11	20 kA 8/20 μs	
8	Response Time [t]	<5 ns	

9	Impulse discharge current [Iimp] as Per IEC 61643-11	7.5KA 10/350 μs	
10	Maximum Discharge current [I max] as per IEC 61643 – 11	50kA 8/20 μs	
11	Voltage protection level [Up] as Per IEC 61643-11	1600 V	
12	Nominal frequency range	50Hz	
13	Environmental ingress protection (IP) Rating IP 65		
14	Operating Temperature (C°)	0° C to +80° C	
15	State indicator	Yes	
16	Disconnector	125A,4PN, MCB, Curve B or C	

III) GUARENTEE:

One Year from the date of completion of installation.

IV) PAYMENT TERMS:

100% payment upon completion of installation at all the places.

V) INSPECTION:

Before Delivery Item should be offered for inspection.

INDICATIVE BILL OF MATERIALS- MANDATORY ITEMS

s.no	Description of Item	Quantity
	Supply, Installation and commissioning of 3P+N Protection Mode MOV based Surge Protector devices housed in a Cabinet with 125A MCB as per Specification	

General terms and conditions:

- 1. All the above items/works have to be supplied/carried out in presence of I.O/Station Head at Akashvani, Kumbakonam and Akashvani, Shivamogga
- 2. The above works have to be carried out within 45 days from the date of issue of Supply/Work order.
- 3. Billing: The Additional Director General (E)(SZ), All India Radio & Doordarshan, Swami Sivananda Salai, Chennai-600005.
- 4. Terms of Payment: 100 % Payment on completion of work.
- 5. The quotation on the firm's letter head should be sent in a sealed cover addressed to The Additional Director General (E)(SZ), Room No.209, All India Radio & Doordarshan, Swami Sivananda Salai, Chennai-600005.

So as to reach on or before 29-04-2025, 16.00 Hrs.

- 6. THE COVER SHOULD BE SUBSRSCRIBED WITH THE FOLLOWING:
 - a) Work for which quotation is enclosed.
 - b) Reference to letter of enquiry.
 - c) Due date of opening quotation.
- 7. The Quotations will be opened in this office <u>at 16.30 Hrs. on 29.04.2025</u> in the presence of tenderers or their agents such as they may choose to attend.
- 8. QUOTATIONS NOT PROPERLY SUBSCRIBED/NOT SUBMITTED ON THE FIRM'S LETTER HEAD WILL NOT BE CONSIDERED.
- 9. GUARANTEE / WARRANTY PERIOD:
 - The Work shall be guaranteed for a period of 1 Year from the date of Commissioning Any failure in the work carried out, during the Guarantee period shall be repaired / replaced free of charge by the Contractor at the Site.
- 10. Both your PAN and GST Number should be definitely indicated in your quotation.
- 11. Taxes: GST leviable and intended to be claimed from the purchaser should be distinctly shown along with prices quoted. Where this is not done no claim for GST will be admitted at any later stage and on any ground whatsoever.
- 12. The contractor shall make his own arrangement for storage of all equipment and materials brought to site from time to time and their safe custody at site till they are taken over by the indenter/his representative. The contractor shall make his own arrangement for providing accommodation for his workmen at site.
- 13. The contractor shall make his/her own arrangements for procuring necessary labour, skilled and unskilled. He should conform to all local government laws and regulations covering labour and their employment.
- 14. The contractor and his employees shall comply with the regulation in force for the controlled entry into premises where work is being carried out.
- 15. Contractor liable for damage caused during installation work and imperfections noticed.

- 16. The contractor shall indemnify and hold harmless the purchaser against all claims in respect of injury or life to any person howsoever arising out of the work in the course of such installation/work. The contractor shall discharge his entire obligation under the Indian Workmen Compensation Act in as for as it affects workmen in his employment.
- 17. Right of acceptance: The Additional Director General (E) (SZ),AIR & TV reserves the right to reject the lowest tender or all the tenders without assigning any reasons whatsoever. Further, the undersigned reserves himself the right for decreasing the quantity of material tendered depending upon the actual requirements. The unit rate quoted on the tender shall be applicable for the quantity for which order is placed.
- 18. The Additional Director General (E) (SZ), AIR & TV, Chennai also reserves the right to place **Repeat Order** for 50% or less quantity for which the quotation has been originally invited/order placed.
- 19.In case any item is found to be defective / substandard, the shall be rejected and no amount shall be paid for such items and such item shall be removed by the supplier from the site at his own cost.
- 20. The contractor shall get the **samples of material approved** sufficiently from the department. The material brought to the site shall strictly confirm to the quality of sample approved.
- 21. Payment shall be made as per the actual measurements.
- 22. **Experience**:- Tenderer should give documentary proof form having successfully completed of similar works (**Past experience**) in any Govt/public sector undertakings in the past. Failing this criteria, Bid will be rejected. Experience criteria should be mailed to dsp.air@rediffmail.com. Bids of those firm who have sent Experience criteria will be opened.

[P.KARTHIKEYAN] ADE (SP)

for ADG(E)(SZ)(BO)

P. Karthiko

पी.कार्तिकेयन /P.KARTHIKEYAN सहायक निदेशक (अभि.) /ASSISTANT DIRECTOR(E) अग्र महानिदेशक (ग्रे(त्रेग) का कार्यात्रय Olo The Additional Director General (A)(SZ) आकारावणी एवं द्रवर्यन / Akashvani & Doordershan स्वानी शिवानंदा साते / Swami Sivananda Salai